State of Nevada

Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	1 of 7

1.0   PURPOSE

To establish standard conditions that contractors or vendors must meet to provide internet hosting services to State agencies.

2.0   SCOPE

This standard applies to all state agencies, contractors and vendors who partake in acquiring, providing or hosting internet services to state agencies outside of those provided by the Department of Information Technology (DoIT).

3.0   EFFECTIVE DATES

The requirements of this standard are effective 90 days after sign-off.

4.0   RESPONSIBILITIES

The agency head has the responsibility to ensure the requirement set forth in this standard are met prior to entering into and signing the final contract with the service provider.

5.0   RELATED DOCUMENTS

6.0   STANDARD

6.0.1   Contracts

    A.   State agencies shall ensure that provisions of the contract between them and the Internet Service Provider (ISP) include penalties for possible losses and that reimbursement be made to the agency if conditions within the contract are not met.

    B.   If the hosting service connects back to the State of Nevada's infrastructure, DoIT requires mandatory review of the contract. The review board shall consist of the Chief, Information Security Officer (CISO), Facility Data Processing Manager (DPM), and the Network Manager.

    C.   Coordination of the contract review by the DoIT Review Board shall occur prior to contract negotiation, except when using the State of Nevada's infrastructure.

State of Nevada
Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	2 of 7

6.0.2 **Responsibilities**

A. **General Hosting Responsibilities:**

1. <u>Hosting site</u> available to operate 24 hours a day, 365 days a year, understanding that staffing levels may vary through out the week.

2. <u>Prime Time Support (PTS)</u> provided during normal workdays, Monday through Friday from 8:00 am to 5:00pm. Staff must be onsite and available to provide assistance in resolving reported problems.

3. <u>Limited </u>Support provided during all other times (operational support staff.

4. Provide application monitoring.

5. Provide a limited number of hours of technical support involving system and database support, problem resolution or technical meeting attendance.

6. Assist in the planning and coordination fro transitioning new or modified applications.

7. Perform all preventative maintenance.

8. Provide status reports.

9. Provide knowledge management for the recording, storing and retrieval of information to assist in the resolution of problems.

B. **Hosting System Administrator Responsibilities:**

1. Maintain and apply patches to the Operating System environments and host-specific subsystems.

2. Install new application releases.

3. Install changes to the user application.

4. Install Operating System environments and host-specific subsystems.

5. Manage backup/recovery operations.

State of Nevada

Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	3 of 7

6. Maintain security and integrity of the Operating System environment, virus walls, firewalls, host specific access controls, storage area network (SAN) and the hosting system infrastructure.

C.   Hosting System Database Administrator Responsibilities:

1. Maintain and modify the databases, table spaces, data files, parameter files and memory.

2. Create database backup and recovery scripts.

3. Build the empty applications databases.

4. Install, upgrade and patch the database and related software.

5. Create and maintain the security (logins, user id's, passwords).

6. Develop tuning and performance testing plans.

7. Coordinate establishment of environment.

8. Coordinate migration of application software from development/test environments to production.

9. Perform database command/tasks.

10. Perform database backup and recovery.

11. Manage objects within the "system" table space.

12. Administer database triggers.

13. Alter database, create profiles, resource cost and rollback segment.

14. Create database links, roles, table spaces and users.

15. Grants any privileges.

State of Nevada

Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	4 of 7

D.   Application System Owner Responsibilities:

1.   Work with hosting site staff to schedule applications system outages for testing, upgrades and/or maintenance. Outages can be scheduled at the application system owner's convenience, but deadlines are usually driven by the vendor's drop-support date.

2.   Provide technical expertise in the testing of the applications under the updated systems software. Applications system owners shall be the judge of whether their applications are running properly after the upgrade.

3.   Hosting site is notified as soon as possible if any problems are caused by the upgrade.

6.0.3   Security

A.   Access to the hosted equipment restricted to system administrators.

B.   All security design, implementation and maintenance requirements performed by system administrators.

C.   Intrusion Detection System (IDS) for hacker protection.

D.   SPAM, unwanted e-mail filtering, protection system.

E.   Security software upgrades.

F.   Apply critical security patches as they are made available from Microsoft.

G.   User ID and password setup and administration.

H.   Security software upgrades.

6.0.4   Continuity of Operations (COOP)

A.   Backup and Recovery

1.   Regular daily and weekly backups maintained in order to preserve the integrity of the operating system and other software infrastructure files. Backup routines and schedules are mutually agreed upon.

2.   Hosting service provides off-site tape backup storage maintained for disaster recovery.

State of Nevada
Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	5 of 7

B.   Hosting Site Disaster Recovery/Business Continuation

1.   Disaster Recovery/Business Continuation is the process of recovering data and operational systems after a disaster strikes (for example, a flood or fires destroys a data center or user location). The Hosting site shall have a sound business recovery strategy in place for mission critical data and core applications hosted.

2.   Hosting site perform at least one annual disaster recovery test at a remote site to ensure that a working system can be restored with their applications and data.

3.   Hosting site maintains current backups of all application software and data.

6.0.5   Problem Reporting and Resolution

Hosting site is responsible for hardware problems, system software and communications problems.

A.   Type of Problems NOT Handled by the Hosting Site

- Application system problems

B.   Priorities of Problem Resolution

- Priority 1:   Production online systems
- Priority 2:   Production batch jobs
- Priority 3:   Test systems

6.0.6   Software Currency

A.   Hosting site maintains the software lease and maintenance contracts with all software vendors in order to ensure that the infrastructure software is at vendor supported levels.

B.   Maintenance contracts in place to commit the vendor to providing technical support for their products.

C.   Hosting site maintains software currency requiring the installation of new releases and applying software maintenance.

State of Nevada
Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	6 of 7

6.0.7   Service Requirements

A.   Physical Environment

1. Hosting site provides an optimal physical environment for computer hardware.
2. Clean, reliable power backed up by a mainframe-grade Uninterruptible Power Supply (UPS) and diesel generator.
3. Controlled temperature environmental systems.
4. Fire suppression systems.
5. Full-time maintenance staff Monday through Friday, 8:00am to 5:00pm.
6. Operations staff on site 24 hours a day, 365 days a year.

B.   System Availability

1. Hosting site provides maximum availability for all systems.
2. Schedules for each application system developed with each application system owner and documented in a memorandum of understanding (MOU).
3. Tasks requiring maintenance downtime scheduled during off-shift times to minimize the impact on users.

C.   Availability Objectives

1. System Availability – Enterprise Server (mainframe): 98.5%
2. System Availability – Web Services: 97.614%
3. System Availability – E-Mail: 97.614%
4. System Availability – NT Database Servers: 97.614%
5. System Availability – UNIX Systems: 99.85%

D.   Preventive Maintenance and Scheduled Downtime

1. Preventive maintenance is scheduled at a minimum of two days in advance.
2. Notification occurs via e-mail or in writing and is coordinated and agreed upon to minimize the impacts to users.
3. Additional maintenance time is granted if mutually agreed upon.

E.   Non-Scheduled Production Downtime – All Systems

1. Hosting site makes immediate notification to the client should any non-scheduled downtime occur which impacts production systems (any platform).
2. Hosting site makes every possible attempt to reverse the outage as soon as possible.

State of Nevada

Nevada Information Technology
Operations Committee (NITOC)

Interim Technical Standard

Control No.	Rev.	Title	Effective	Terminates	Page
2.04	C	Non-DoIT Internet Service Provider (ISP) Hosting Standards	10/08/04	02/08/05	7 of 7

F. **Help Desk**

Help Desk or similar services available to perform tasks such as password resets, server software support and problem tracking/status reporting.

G. **Performance**

Application performance involves many variables such as hardware capacity and speed, transaction arrival rates, network traffic, workstation capacity and speed, database design and tuning and the amount and efficiency of application processing.

Hosting site deploys a performance-monitoring product to keep track of overall performance of the infrastructure, such as the operating system and network traffic.

7.0   DEFINITIONS/BACKGROUND

None

8.0   EXCEPTIONS/OTHER ISSUES

Request for exception to the requirements of this Interim IT Standard must be documented, provided to and approved by the Review Board and Chief Information Officer (CIO).

Approved By		
Title	**Signature**	**Date**
NV IT Operations Committee Chair	Signature on File	10/25/04

Document History		
Revision	**Date**	**Change**
(A)	2/20/04	Initial release.
(B)	07/08/04	Extended for another 90 days
(C)	10/08/04	Extended by CIO for 3 months